

School Name:	St. Michael				School Code:	222
Location:	10545 - 92 street Edmonton, Alberta T5H 1V1				Facility Code:	2026
Region:	Central				Superintendent:	Dr. Dale W. Ripley
Jurisdiction:	Edmonton RCSSD No. 40				Contact Person:	Mr. Garnet McKee
					Telephone:	(780) 453-4500 (Garnet)
Grades:	K-VI				School Capacity:	Total 450
Building Section	Year of Compl.	No. of Floors	Gross Bldg Area (Sq.M.)	Type of Construction (i.e., structure, roof, cladding)	Description of Mechanical Systems (incl. major upgrades)	Comments/Notes
Original Building	1946	1	1277.6	Framed/B.U.R. T & G	Steam heating system; exhaust ventilation heating & ventilation serves gym	Boilers recently replaced.
Additions/ Expansions	1949 1953 1957 1962 1970	1 1 1 1 1	177.6 177.6 1192.0 500.7 187.1	Framed/B.U.R. T & G Framed/B.U.R. T & G Framed/B.U.R. T & G Framed/B.U.R. Framed/B.U.R.	1949; 1958; 1968: Steam heating; exhaust ventilation. 1970: Roof top (gas-fired) heating & ventilation to serve library	
					Evaluator's Name:	Bill Vance
					& Company:	Henderson Inglis Partridge

Upgrading/ Modernization (identify whether minor or major)	1992 1997 1998 1999					-Minor Modernization provide supervision window from General Office into Corridor. -Minor Modernization upgrade electrical supply within Corridors for computers. -Minor Modernization upgrade Library facilities, reception & electrical supply. -Minor Modernization supply & install security safe.
Portable Struct. (identify whether attached/perman. or free-standing/ relocatable)						
List of Reports/ Supplementary Information	See Section 8 for complete list.					

	Evaluation Components	Summary Assessment	Estim. Cost
1	Site Conditions	Generally good condition with some walkways needing attention and a North East Entrance which is in conflict with staff parking.	\$34,500
2	Building Exterior	Recently repainted but shows age of school. Potential settlement condition in South West corner of school requires further attention.	\$131,500
3	Building Interior	Generally showing age with finishes that need attention and in need of repaint. Ceilings in need of replacement at time of installation of ventilation system.	\$154,000
4	Mechanical Systems	Replace steam heating systems with perimeter hot water; install new ventilation systems throughout with provisions for humidification.	\$664,500
5	Electrical Systems	Insufficient receptacles and inadequate distribution require replacement/upgrading. Also luminaires should be replaced with energy efficient type.	\$387,000
6	Portable Buildings		\$0
7	Space Adequacy:		
	7.1 Classrooms	Surplus 54.1 S.M.	
	7.2 Science Rooms/Labs	Deficient 190 S.M.	
	7.3 Ancillary Areas	Deficient 265.7 S.M.	
	7.4 Gymnasium	Deficient 193.8 S.M.	
	7.5 Library/Resource Areas	Surplus 46.3 S.M.	
	7.6 Administration/Staff Areas	Deficient 302.3 S.M.	
	7.7 CTS Areas		
	7.8 Other Non-Instructional Areas (incl. gross-up)	Surplus 652 S.M.	
	Overall School Conditions & Estim. Costs	Sections of varying ages, Architectural, Mech. And Elec. work required. Area Deficiency 199.4 S.M.	\$1,371,500

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.1	General Site Conditions			\$7,500
1.1.1	Overall site size.	4	Size appears adequate. Expansion potential to east.	
1.1.2	Outdoor athletic areas.	4	Snowcover / winter conditions prohibits meaningful inspection. None identified by staff.	
1.1.3	Outdoor playground areas, including condition of equipment and base.	4	As per 1.1.2	
1.1.4	Site landscaping.	4	As per 1.1.2	
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	3	Bent railings along 92nd street.	\$2,500
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	3	Winter conditions makes assessment difficult. Dirt areas against school uneven require regrading. slab at east door backslopes to school.	\$5,000
1.1.7	Evidence of sub-soil problems.	F.I.	Appears to be some kind of settlement problem southwest corner of 1946 Building. (interior signs of floor settlement)	
1.1.8	Safety and security concerns due to site conditions.	4	No obvious safety or security concerns & none identified by staff other than bus/parking. (see 1.2.3)	
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.2	Access/Drop-Off Areas/Roadways/Bus Lanes			\$17,000
1.2.1	Vehicular and pedestrian access points (i.e., size, number, visibility, safety).	3	5 pedestrian access points. No vehicular access other than parking area on north side directly of 106th ave. winter conditions make assessment difficult but appears may be a conflict between pedestrian/vehicular traffic at Northeast entrance. Cost for relocating existing parking stalls at this location and creating two new.	\$12,000
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	N/A	None	
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	4	No designated bus lanes or drop off. Some buses stop on 106th Ave. which is in conflict with parking in this area. Staff identified the desire to have designated bus lanes.	
1.2.4	Fire vehicle access.	4	Good access City of Edmonton streets. Padlocked chain would provide access to grounds on East if linked to Fire Department keying.	
1.2.5	Signage.	3	Fixed signage in good condition. School currently uses what we assume is a portable rented sign to provide community information. Fixed sign would be more appropriate.	\$5,000
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.3	Parking Lots and Sidewalks			\$10,000
1.3.1	Number of parking spaces for staff, students and visitors (including stalls for disabled persons).	4	Approximately 18 stalls identified. 7 duplex outlets (14 cars) no designated disabled stall noted. Current City of Edmonton standards would require 21.	
1.3.2	Layout and safety of parking lots.	3	Conflict with bus drop off & school pedestrian access layout forces backing out onto City of Edmonton streets. Costs have been identified in 1.2.1	Refer to 1.2.1
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	4	Winter conditions makes assessment difficult. Appears to be asphalt.	
1.3.4	Layout and safety of sidewalks.	3	Potential conflict, student access between parking areas. Northeast corner. Costs have been identified in 1.2.1	Refer to 1.2.1
1.3.5	Surfacing and drainage of sidewalks (note type of material).	3	Winter conditions makes assessment difficult. Cracked/Broken walks noted at some locations. Some patching required.	\$5,000
1.3.6	Curb cuts and ramps for barrier free access.	3	No evidence of curb cuts for H.C.	\$5,000
	Other			
	Overall Site Conditions & Estimated Costs			\$34,500

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.1	Overall Structure		Bldg. Section	Description/Condition	\$0
2.1.1	Floor structure and beams (i.e., signs of bending, cracking, heaving, settlement, voids, rust, stains).	F.I.		Generally good Southwest corner of 1946 building (girls washroom & mezzanine above) signs of floor settlement. This combined with cracking stucco, loose soffit indicate there may be movement in this area.	
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	F.I.		Generally good Southwest corner of 1946 building. (see 2.1.1 above) Cracking brick lunch & art room 1946 building.	
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	4		Roof not accessed due to winter conditions. No obvious signs of any problems from perimeter at grade level.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.2	Roofing and Skylights <i>Identify the availability of an up-to-date inspection report or roofing program. Note if roof sections are of different ages and/or in varying</i>		Bldg. Section or Roof Section	Description/Condition/Age	\$0
2.2.1	Based on the inspection report (and to the extent possible, direct observation), assess and rate roof conditions and estimate costs for required improvements (i.e., covering materials, membrane, insulation, other components).	4	1957 1957 1946 1949 1942 1971 1953 1962 1970	1980 partially reroofed. (data sheet indicates 20yr. Pitch F & G) 1986 reroofed. Reroofed (data sheet indicates 20yr. Pitch F & G) no insulation. Reroofed. (data sheet indicates 20yr. Pitch F & G) 1 storey reroofed. 1 storey reroofed. No record of reroofing. (data sheet indicates 20yr. Pitch F & G) No record of reroofing. (data sheet indicates 5ply B.U.R.) No record of reroofing. (data sheet indicates 4ply B.U.R.) roof not inspected due to winter conditions. staff indicated that the roofs are inspected annually. there had been a problem with a leak in summer 1999. Edmonton Catholic Schools records indicate an inspection was conducted in 1992 and that the roof was O.K.	
2.2.2	Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	4		Roof not accessed due to winter conditions. No obvious signs of any problems from perimeter at grade level.	
2.2.3	Control of ice and snow falling from roof.	4		No problems evident. Flat roofs.	
2.2.4	Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).			None	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.3	Exterior Walls/Building Envelope		<u>Bldg. Section</u>	<u>Description/Condition</u>	\$10,000
2.3.1	Exterior wall finishes (i.e., signs of deterioration, cracks, brick spalling, effluorescence, water stains).	3	1946 1957 all others	Staff indicate school exterior painted in 1997. Exterior cracking southwest corner (stucco). Stucco cracking base of Gym. East wall. Generally all other areas appear good stucco/prefinished metal.	\$5,000
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	3	1946 all others	Stucco soffit southwest corner appears to be coming loose. Generally other sections good.	\$5,000
2.3.3	Building envelope (i.e., evidence of air infiltration/exfiltration through the exterior wall or ice build up on wall, eaves, canopy).	4		No significant problems observed.	
2.3.4	Interface of roof drainage and ground drainage systems.	4	all	No significant problems observed.	
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4	1946 all others	Cracking lunch & art room. No significant problems observed.	
Other					
2.4	Exterior Doors and Windows		<u>Bldg. Section</u>	<u>Description/Condition</u>	\$121,500
2.4.1	Doors (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	3	all	School painted recently so surfaces generally good condition, however general signs of age of components.	\$6,500

Section 2	Building Exterior	Rating		Comments/Concerns	Estim. Cost
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	3	all	State reflects old age of components.	\$2,000
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	4	all	Panic hardware noted. No apparent safety concerns.	
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	4	all	Staff indicate all windows replaced 7 years ago (date on glazing observed at one location was 1994) window is in good condition.	
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	4	all	As per 2.4.4 accessories in good condition.	
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	4	all	None evident.	
Other		3		Mechanical Systems Upgrades may require additional building space to accommodate requirements. Allowance is based on 3% of Gross Building Area.	\$113,000
Overall Bldg Exterior Condition & Estim Costs					\$131,500

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.1	Interior Structure		Bldg. Section	Description/Condition	\$0
3.1.1	Interior walls and partitions (i.e., signs of cracks, spalling, paint peeling).	4	1946 all others	Cracking noted lunch & art room walls. Generally good condition considering old age of school	
3.1.2	Floors (i.e., signs of cracks, heaving, settlement).	FI 4	1946 all others	Cracking heavy settlement southwest corner. Floors slope up/down as one would expect for a school with this number of additions this age. No significant concern.	
Other					
3.2	Materials and Finishes		Bldg. Section	Description/Condition	\$129,000
3.2.1	Floor materials and finishes.	3	1946 1949 1953 1957 1962 1970	Linoleum, vct, carpet (largest areas sheet vct marginal condition, carpet good condition) Carpet VCT good condition Wood (gym) vct generally good condition considering age VCT, carpet generally good condition	\$20,000
3.2.2	Wall materials and finishes.	3	1946 1949 1953 1957 1962 1970	Plaster, painted wood, brick Plaster, painted wood Plaster, painted wood Plaster or gypsum board on painted wood Plaster or gypsum board on painted wood Gypsum board (staff indicated school last painted 1992. Materials are good, repainting req.	\$42,000
3.2.3	Ceiling materials and finishes.	3	1946 1949 1953 1957 1962 1970	T-bar, adhered tile - School has initiated installation of T bar some areas 1946/49. Complete. Adhered tile T-bar, adhered tile - good Adhered tile - good T-bar Exposed glulam structure/stained wood deck - good	\$35,000
				Mech. and elec. systems upgrades will require ceiling systems upgrades.	

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.2	Materials and Finishes (cont'd)		Bldg. Section	Description/Condition	
3.2.4	Interior doors and hardware.	3	all	Doors & hardware generally good condition considering age. Surfaces chipped, marked & in need of repaint. Staff w.c. needs new stall doors.	\$2,000
3.2.5	Millwork	3	1970 all others	Good condition. Millwork shows signs of age. Surfaces chipped, marked & in need of repaint	\$25,000
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs).	4	all	Good condition.	
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4	all	Generally good condition considering age. Limited Gym equipment. (climbing bars only)	
3.2.8	Washroom materials and finishes.	3	1946 1957 1962	Terrazzo floors, stalls, plaster (boys used for stor. girls floor settlement cracking) terrazzo floors, ceramic tile, plaster - wood chipped.	\$5,000
Other					
3.3	Health and Safety Concerns --- Intent is to identify renovations considered necessary to meet applicable codes, primarily due to safety concerns. Basis of evaluation should be an up-to-date inspection report from the authority having jurisdiction together with direct observations as appropriate. Evaluator should note if in his opinion a comprehensive code evaluation is		Bldg. Section	Description/Condition	\$25,000
		F.I.	all	No inspection reports provided by School Board. Educational Facilities Master Plan 2007 Edmonton Catholic Schools March 1998 assesses St.Michael as unacceptable or unsafe rating related to Code issues. While compliance with 1997 Code is not a requirement now, the alterations identified in this report may in the eyes of the Plans examiner be considered substantial alterations to the building and compliance then a requirement.	

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.3.1	Building construction type - combustible or non-combustible, sprinklered or non-sprinklered.	4	all	Frame (combustible) non-sprinklered.	
3.3.2	Fire separations (i.e., between buildings, wings, zones if non-sprinklered).	4	all	Doors in corridor may be fire separations/smoke barriers. It is not possible to determine as no labels were evident.	
3.3.3	Fire resistance rating of materials (i.e., corridor walls and doors).	4	all	No labels evident to confirm fire resistance rating of materials.	
3.3.4	Exiting distances and access to exits.	4	all	No dead end corridors or obvious excessive distance to exit problems.	
3.3.5	Barrier-free access.	2		Steps at all but one school entrance, North East 1962 Stage not accessible. Metal ramp only at southeast entrance. Budget for improved ramps/rails and accessible washroom.	\$25,000
3.3.6	Availability of hazardous materials audit (i.e., evidence of safety concerns with respect to asbestos, PCB's, chemicals).	F.I.		No audit provided by school jurisdiction. Staff indicated asbestos removal program in 1998. Possible asbestos content ceilings & floors.	
3.3.7	Other health and safety concerns (i.e., evidence of excessive noise conditions, air quality problems)				
Other					
Overall Bldg Interior Condition & Estim Costs					\$154,000

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
	4.1 Mechanical Site Services				\$0
	4.1.1 Site drainage systems (i.e., surface and underground systems, catch basins).	4		Roof drains splashed onto grade; generally drains away from the building. Catch basin located in courtyard.	
	4.1.2 Exterior plumbing systems (i.e., irrigation systems, hose bibs).	4		Adequate hose bibbs distributed around the school perimeter.	
	4.1.3 Outside storage tanks.	N/A		N/A	
	Other				
	4.2 Fire Suppression Systems		Bldg. Section	Description/Condition	\$0
	4.2.1 Fire hydrants and siamese connections.	5		Fire hydrant within 90 m of front entrance. No siamese connection.	
	4.2.2 Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	4	All Wings	Standpipe and hose system throughout building with adequate spacing.	
	4.2.3 Hand extinguishers, blankets and showers (i.e., in CTS areas).	5	All Wings	Adequate hand extinguishers.	
	4.2.4 Other special situations (e.g., flammable storage areas, science labs, CTS areas).				
	Other				

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.3	Water Supply and Plumbing Systems		<u>Bldg. Section</u>	<u>Description/Condition</u>	\$2,500
4.3.1	Domestic water supply (i.e., pressure, volume, quality note whether municipal or well supply).	4	All Wings	2" domestic water supply connected to Municipal system.	
4.3.2	Water treatment system(s).	N/A		N/A	
4.3.3	Pumps and valves (including backflow prevention valves).	4	All Wings	No leaks noted from valves; circulating pumps in good condition.	
4.3.4	Piping and fittings.	4	All Wings	No leaks noted from piping; copper piping is used.	
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	4	All Wings	Fixtures/trim in good condition.	
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	3	All Wings	John Wood gas fired instantaneous heater with integral storage; Model JWA 5021 B04, 32.2 imperial gallons; 46,000 btuh (input).	\$2,500
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	4	All Wings	No problems reported with sanitary sewer system. Lift station - Atlas, Ser. No. 2113, Simplex 1/2 h.p. motor located in basement. Sanitary sewer extended to Municipal mains.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.4	Heating Systems		Bldg. Section	Description/Condition	\$292,000
4.4.1	Heating capacity and reliability (including backup capacity).	3	1957	2 steam boilers - H.B. Smith, G400 at7 psi; 1,000,000 btuh (input) each boiler.	\$35,000
4.4.2	Heating controls (including use of current energy management technology).	4	1957	Pneumatic room control valves on steam supply; room temperature and central plant monitored on Andover system.	
4.4.3	Fresh air for combustion and condition of the combustion chimney.	4	1957	Adequate combustion air provided.	
4.4.4	Treatment of water used in heating systems.	4	1957	Chemical pot feeder into condensate receiver.	
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating).	4	1957	Adequate boiler controls and failure devices; relief valves on each boiler.	
4.4.6	Heating air filtration systems and filters.	4	1957	Air filters on heating and ventilating unit that services the gymnasium.	
4.4.7	Heating humidification systems and components.	N/A		N/A	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.4	Heating Systems (cont'd)		<u>Bldg. Section</u>	<u>Description/Condition</u>	
4.4.8	Heating distribution systems (i.e., piping, ductwork) and associated components (i.e., diffusers, radiators).	3	All Wings	Steam distribution system to perimeter elements - difficult to maintain; overheating evident.	\$150,000
4.4.9	Heating piping, valve and/or duct insulation.	2	1944 1957	Overheating due to uninsulated pipe/valves. None of the condensate pipe return is insulated; severe overheating in the boiler room due to uninsulated valves/fittings; poorly insulated boilers; floor space above overheats as a result. Provide adequate ventilation in boiler room.	\$55,000
4.4.10	Heat exchangers.	N/A		N/A	
4.4.11	Heating mixing boxes, dampers and linkages.	4	1957	Damper linkages on heating and ventilating unit serving gymnasium are in good condition.	
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	3	1957 1970	Gym heating and ventilating unit must run to heat the gymnasium; no independent system. Rooftop unit provides heating/ventilation for the library zone.	\$32,000
4.4.13	Zone/unit heaters and controls.	3	All Wings	Several fan coil units distributed throughout the space that use outside air/return air mix; steam unit heaters mounted high in entrance.	\$20,000
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	Ventilation Systems		Bldg. Section	Description/Condition	\$370,000
4.5.1	Air handling units capacity and condition.	2	1957 1970 1944, 1949, 1958	Gymnasium heating and ventilating unit - worn but working. Library rooftop heating and ventilating unit - nearing end of life expectancy - Lennox unit (unable to access nameplate data). No supply ventilation system; some exhaust grilles evident.	\$255,000
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	2	1957, 1970 1944, 1948, 1958	Marginal outside air provision. No outside air; openable windows; some classrooms have unit ventilators.	Ref. 4.5.1
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	2	1957, 1970 1944, 1949, 1958	Air distribution from these air systems is adequate. No air distribution.	Ref. 4.5.1
4.5.4	Exhaust systems capacity and condition.	3	All Wings	Exhaust from washroom is adequate. Exhaust fans are worn; will soon need replacement.	\$40,000
4.5.5	Separation of out flow from air intakes.	4	1957, 1970	Air intakes are at roof level, same as all exhaust fans; reasonable separation; some wind directions may impact.	
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas).	N/A		N/A	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	Ventilation Systems (cont'd)		Bldg. Section	<u>Description/Condition</u>	
<i>Note: Only complete the following items if there are separate ventilation and heating systems.</i>					
4.5.7	Ventilation controls (including use of current energy management technology).	3	1957	Pneumatic controls on modulation, dampers; central monitoring by Andover system. Provide digital control system consistent with ventilation system upgrade.	\$60,000
4.5.8	Air filtration systems and filters.	4	1957	Adequate - unable to access filter sections in fan coil units.	
4.5.9	Humidification system and components.	3		No humidification system installed.	\$15,000
4.5.10	Heat exchangers.	N/A		N/A	
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages).	4	1957	Adequate - no major deficiencies noted.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.6	Cooling Systems		<u>Bldg. Section</u>	<u>Description/Condition</u>	\$0
4.6.1	Cooling system capacity and condition (i.e., chillers, cooling towers, condensers).	N/A			
4.6.2	Cooling distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages)				
4.6.3	Cooling system controls (including use of current energy management technology).				
4.6.4	Special/dedicated cooling systems (i.e., labs, CTS areas).				
	Other				
4.7	Building Control Systems		<u>Bldg. Section</u>	<u>Description/Condition</u>	\$0
4.7.1	Building wide/system wide control systems and/or energy management systems.	4	All Wings	Building, room temperatures, central plant is monitored by Andover central plant.	
Overall Mech Systems Condition & Estim. Costs					\$664,500

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.1	Site Services				\$64,000
5.1.1	Primary service capacity and reliability (i.e., access, location, components, installation, bus sizes - note whether overhead or underground).	3	1944 1949	-Main distribution 400 ampere switch and splitter, 240/120 VAC, 1 phase -Main distribution crammed in basement corridor - very limited space for additional sub-services -U/G power service from north - pole mounted utility transfer - O/H line along 106 Street -Recent Teck 90 U/G feeder replacement -Meter peak demand 48 KVA (assessed capacity 96 KVA) Replace main distribution switchgear	\$60,000
5.1.2	Site and building exterior lighting (i.e., safety concerns).	3	All	-HPS wall units, canopy and door incandescent luminaires -Adequate illumination at parking area and south entry but no illumination at main entry. Add luminaires.	\$4,000
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	4	All	-Electrified plugs for parking area, separate panel; no visible cycling or timing controls	
Other		4	All	-Telephone service overhead and via crawlspace to main backboard in basement crawlspace/corridor -Some upgrading of the original installation has occurred to a new multiline source	
5.2	Life Safety Systems		Bldg. Section	Description/Condition	\$4,000
5.2.1	Fire and smoke alarm systems (i.e., safety concerns, up-to-date technology, regularly tested).	4	All	-Simplex 2001 system, non addressable -6 zones in use, space for 1 additional device zones -Annunciator and graphic mimic at main entry -Generally devices exist where required in storage rooms, IA areas, etc. -Recently verified.	
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	3	All	-Dual head battery packs in key corridors, gymnasium computer rooms and in mechanical rooms -Tested every 3 months -Quantity of heads/illumination levels marginal in some areas.	\$4,000
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	4	All	-Exit luminaires generally where required -Exits not connected to battery back-up or emergency power -Exits are incandescent	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.3	Power Supply and Distribution		Bldg. Section	Description/Condition	\$167,000
5.3.1	Power service surge protection.	3	1944 1949	-None -No isolation between equipment/mechanical and technology (user) loads.	\$4,000
5.3.2	Panels and wireways capacity and condition.	3	1978 1944 1949 1957 1958 1962	-Components still available in 1978 wiring - not obsolete -Approximately one-third space in 1978 panels -Some of the panels have been upgraded to new panels in remainder -Remaining original panels are obsolete with no space for additions	\$36,000
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).	N/A		None	
5.3.4	General wiring devices and methods.	3	1978 1944 1949 1957 1958 1962	-Recently renovated rooms utilize new panels, pak poles, surface conduit, etc. -Two receptacles per classroom, one at front, one at side or rear (insufficient) -Surface conduit and wiring in most cases.	\$123,000
5.3.5	Motor controls.	3	1944 1949	-Motor services and controls are generally splitter/disconnect/starter configurations -Several of the starters and panels are obsolete.	\$4,000
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.4	Lighting Systems		Bldg. Section	Description/Condition	\$142,000
5.4.1	Interior lighting systems and components (i.e., illumination levels, conditions, controls).	4	1978 1944 1949 1957 1958 1962	-Newly areas utilize new type recessed and suspended luminaires -All other areas surface fluorescent with wrap around lensing, T12 lamps, standard ballasts -All line voltage switched; block (row) switching -Illumination levels: Classroom - approximately 600 lux Corridors - 300 - 400 lux (1944;1949); 700-800 lux (1962 - overlit) Laboratories - 500 - 600 lux Offices - 500 - 700 lux Gymnasium - 350 - 450 lux Library - approximately 700 lux -Discoloured and broken lenses exist in older sections of school.	
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	FI	1944 1949 1957 1958 1962	-Vintage of older style fluorescent wrap arounds not known; may be pre 1968 and original ballasts would contain PCB.	
5.4.3	Implementation of energy efficiency measures and recommendations.	3	All	-Remainder all T12 lamps and standard ballasts; upgrade to T8 and electronic ballasts -Upgrade exits to full LED type -Upgrade gymnasium to HID lighting -In conjunction with ventilation upgrade provide new luminaires in lieu of retrofitting	\$142,000
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.5	Network and Communication Systems		Bldg. Section	Description/Condition	\$10,000
5.5.1	Telephone system and components (i.e., capacity, reliability, condition).	4	All	-Recently upgraded telephone system Nitsuko DX -Incoming multiline (25 pair) cable -Older style terminal blocks mixed with new BIX blocks; unused wiring should be removed and consistent termination approach applied	
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	4	All	-Classroom call and PA system Bogen MCP 35A; surface speakers in classrooms and corridors with exposed cable -RFTV distribution to all classrooms -Local VCR and TV's installed in most classrooms -Mix of recessed and exposed conduit/boxes/cabling for	
5.5.3	Network cabling (if available, should be category 5 or better).	4	All	-Category 5 system (recently installed) -Computer clusters in corridors with surface wiring -One or two outlet assembly in each classroom; also in teacher's office -Multi outlet assemblies in library	
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	4	All	-Exposed conduit and surface plastic mold; also wiring via crawlspace -Use of pak poles for computer rooms and library clusters	
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	3	All	-Local hubs in various locations interconnected -Installation is a make do configuration because of inflexibility in routing (inaccessible ceiling, etc.)	\$10,000
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	4		-Dedicated circuits only in recently renovated library areas.	
Other					

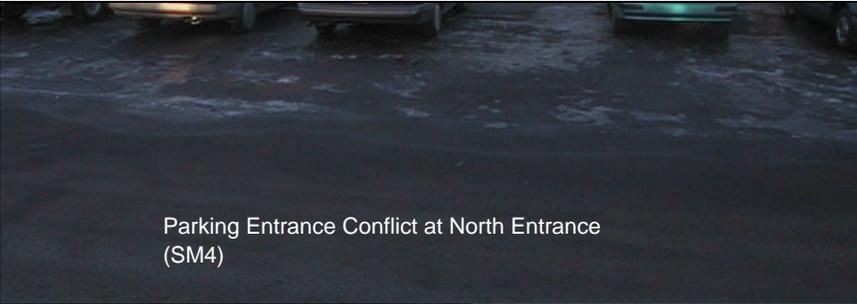
Section 5 Electrical Systems		Rating	Comments/Concerns		Estim. Cost
5.6	Miscellaneous Systems		Bldg. Section	Description/Condition	\$0
5.6.1	Site and building surveillance system (if applicable).	N/A	All	-None	
5.6.2	Intrusion alarms (if applicable).	4	All	-Custom security system common to all ECS Schools -12 zones, 4 spare (all intrusion detectors) -LED annunciator and graphic mimic at main entry	
5.6.3	Master clock system (if applicable).	4		-None -All sections utilize local electric clocks	
	Other				
5.7	Elevators/Disabled Lifts (If applicable)				\$0
5.7.1	Elevator/lift size, access and operating features (i.e., sensing devices, buttons, phones, detectors).				
5.7.2	Condition of elevators/lifts.				
5.7.3	Lighting and ventilation of elevators/lifts.				
	Other				
Overall Elect. Systems Condition & Estim Costs					\$387,000

Section 6	Portable Buildings	Rating	Comments/Concerns	Estim. Cost
	<i>Note: Separate sheets can be completed, if necessary, for portable buildings of different ages and/or conditions.</i>	N/A	None	
6.1.1	Foundation and structure (i.e., signs of bending, cracking, settlement, rust, voids, stains).			
6.1.2	Roof materials and components (i.e., signs of deterioration, leaks, ice build-up).			
6.1.3	Exterior wall finishes (i.e., signs of deterioration, cracks, water stains).			
6.1.4	Doors and windows (i.e., signs of deterioration, rusting hardware, glass cracks, peeling paint, damaged seals).			
6.1.5	Interior finishes (i.e., floors, walls, ceiling).			
6.1.6	Millwork (i.e., counters, shelving, vanities, cabinets).			
6.1.7	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs)			
6.1.8	Heating system.			
6.1.9	Ventilation system.			
6.1.10	Electrical, communication and data network systems.			
6.1.11	Health and safety concerns (i.e., fire and smoke alarms, fire protection systems, exiting, fire resistance rating of materials).			
6.1.12	Barrier-free access.			
Overall Portable Bldgs Condition & Estim Costs				\$0

Section 7	Space Adequacy	This Facility			Equiv. New Facility			Surplus/ Deficiency	Comments/Concerns
		No.	Size	Total Area	No.	Size	Total Area		
7.1	Classrooms	14		1014.1	12	80	960	54.1	
7.2	Science Rooms/Labs				2	95	190	-190	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)	2		134.3	1 3	130 90	400	-265.7	
7.4	Gymnasium (incl. gym storage)	2		279.2	1 1	43 430	473	-193.8	
7.5	Library/Resource Areas	2		246.3	1	200	200	46.3	
7.6	Administration/Staff, Physical Education, Storage Areas	8		202.7			505	-302.3	
7.7	CTS Areas								
	7.7.1 Business Education								
	7.7.2 Home Economics								
	7.7.3 Industrial Arts								
	7.7.4 Other CTS Programs								
7.8	Other Non-Instructional Areas (i.e., circulation, wall area, crush space, wc area)	10		1636			984	652	Data sheets provided do not contain information about circulation, wall area & crush space for this school.
	Overall Space Adequacy Assessment			3512.6			3712	-199.4	

Evaluation Component/ Sub-Component	Additional Notes and Comments
Storage	Staff indicated shortage of storage space at school. Washrooms/coat rooms used for storage.
Interior Courtyard	Staff indicated that better access to courtyard for staff/students would increase value of this school asset.
General	An older school which appears to be well maintained & in generally good condition considering age. Nevertheless many finishes are at or near end of life. School to certain extent suffers from being a patchwork of materials & finishes.
Building Code	Edmonton Catholic Schools provided a document entitled "Educational Facilities Master Plan 2007" dated March 1998 to the study team. This documented a physical evaluation of the schools similar to this study. The Educational Facilities Master Plan gives St. Michael a 1 or unacceptable or unsafe rating with reference to Building Code issues. No specifics are given for the reasons for this rating. The study team for the 1999 evaluation did not evaluate the school in terms of 1997 Alberta Building Code, rather made some generalized comments about safety issues within the school. It is possible that the scope of work suggested by this evaluation or other modernizations contemplated by the School Jurisdiction may be considered by a plans examiner with the responsible authority to be a substantial alteration to the building and therefore 1997 Alberta Building Code Compliance may be
Building Code Cont'd	Alberta Building Code Compliance has not been identified. Further Investigation may be required.
	

Evaluation Component/ Sub-Component	Additional Notes and Comments
	
	
(SM3)	<p>Temporary Sign at Entrance (SM3)</p> <p>Temporary/Rental Sign seems inappropriate</p>
(SM2)	<p>Bent railings at front of school.</p>
	
	

Evaluation Component/ Sub-Component	Additional Notes and Comments	
(SM4) Entrance/Exit feeds directly into parking without buffer.		 <p>Parking Entrance Conflict at North Entrance (SM4)</p>
		 <p>(SM5) Stucco soffit appears to be failing</p>
		<p>Failing Stucco Soffit (SM5)</p>
(SM6)	<p>Many floor finishes are original and tired/dated.</p>	

Evaluation Component/ Sub-Component	Additional Notes and Comments	
		<p>Typical Floor/Wall Finishes (SM6)</p>
		
	<p>Typical Interior Door Frame Requiring Painting (SM7)</p>	
		<p>(SM7) Door frames illustrate the need for repainting</p>
		<p>(SM8) (SM9) Cracking in floors may be the result of settlement which occurred some years ago.</p>
		
	<p>Cracking/Settlement at South West Entrance (SM8)</p>	
		

Evaluation Component/ Sub-Component	Additional Notes and Comments
	

